UNITED STATES DISTRICT COURT SOUTHERN DISTRICT OF NEW YORK

KONINKLIJKE PHILIPS ELECTRONICS N.V. and

U.S. PHILIPS CORPORATION,

-against-

CINRAM INTERNATIONAL, INC., et al.	08	Civ	00515	(RGS)
THE ADS GROUP, et al.	80	Civ	04068	(RGS)
ENTERTAINMENT DISTRIBUTION COMPANY				
(USA), LLC, et al.	80	Civ	04070	(RGS)
OPTICAL EXPERTS MANUFACTURING INC, et al.	08	Civ	04071	(RGS)
EMI Group PLC, et al.	08	Civ	07351	(RGS)

MEMORANDUM AND ORDER ON CLAIM CONSTRUCTION

RICHARD G. STEARNS, United States District Judge¹

The patent in suit, U.S. Patent No. 5,068,846 ('846 Patent), entitled "Reflective, Optical Record Carrier," was issued to Pieter Kramer, the former head of the optical research group at plaintiff Koninklijke Philips Electronics N.V., on November 26, 1991. The '846 patent is directed to a record carrier for video and/or audio information. Before the court are the parties' briefs on claim construction. The court held a claim construction hearing in the

¹Of the District of Massachusetts, sitting by designation.

²The U.S. subsidiary, U.S. Philips Corporation, is also a plaintiff. Collectively, the entities will be referred to as "Philips."

Southern District of New York on December 2, 2009, and a subsequent hearing at which Markman³ issues were addressed on January 22, 2010.⁴

BACKGROUND OF THE INVENTION

The '846 Patent discloses an optical storage disc consisting of three main structures. The lower surface of the disc is a substrate (also referred to as the "carrier substrate"), which permits the interpenetration or passage of a beam of light. The optical structure is comprised of a number of circular tracks in which data is stored in a pattern of pits and depressions. A protective layer, also called an "additional layer," is located above the optical structure.

The disc described in the '846 Patent is read in reflection mode, as opposed to transmission mode. In reflection mode, a beam of radiation (referred to as the "read beam") passes through the carrier substrate and is reflected at the optical structure.

³Styled after <u>Markman v. Westview Instruments, Inc.</u>, 517 U.S. 370 (1996).

⁴In addition to argument from counsel, the court heard testimony, much of it in the nature of tutorials, from Dr. Paul Prucnal, Professor of Engineering at Princeton University, and Robert Freedman, Chief Technology Officer for the Optical Disc Manufacturing Division of Crest National Optical Media Company (on behalf of Philips), and from Dr. T.E. Schlesinger, Professor of Electrical Engineering at Carnegie Mellon University (on behalf of defendants).

⁵The optical structure is also referred to as the "information structure." In addition, the pattern is sometimes referred to as the "crenulated" or "crenellated" surface.

During the disc's rotation, the read beam is focused on a fixed point on the optical structure and is modulated in accordance with the sequence of depressions on the track. The read beam passes through a half-silvered mirror, which serves as the reflector. The modulated beam is then intercepted by a radiation-sensitive detector. An electric signal is produced by the detector that corresponds to the information stored in the tracks. A connected electronic means is used to convert the signal into picture and sound. See '846 Patent, Col. 3, 1. 61-Col. 4, 1. 10.6

Claim Construction

"It is a bedrock principle of patent law that the claims of a patent define the invention to which the patentee is entitled the right to exclude." Phillips v. AWH Corp., 415 F.3d 1303, 1312 (Fed. Cir. 2005) (en banc) (citations and quotation marks omitted). Claim construction is primarily a question of law to be determined by the court. See Markman v. Westview Instruments, Inc., 517 U.S. 370, 388-389 (1996). It is the court's function to insure that the jury is instructed in the proper definitional meaning of the terms used to describe a claim, particularly those that are technical or scientific in nature, as well as those that are given a unique lexicographic significance by the inventor, and thus are likely to

⁶In transmission mode, the read beam passes through the surface of the carrier substrate and emerges from the carrier to be captured by a detector on the converse side of the disc. The beam is modulated by the optical structure during its passage through the carrier substrate.

lie outside of jurors' collective knowledge or experience.

A disputed term should be construed by first examining the intrinsic evidence of record from the perspective of one skilled in the relevant art. See Phillips, 415 F.3d at 1313-1314. Because the purpose of the teachings of a patent is to enable a skilled practitioner to recreate the invention, see id. at 1323, it is "entirely appropriate for a court, when conducting claim construction, to rely heavily on the written description for guidance as to the meaning of the claims." Id. at 1317. See also Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1582 (Fed. Cir. 1996) (The patent specification "is always highly relevant to the claim construction analysis. Usually it is dispositive; it is the single best guide to the meaning of a disputed term.").

In addition, a court may look to the prosecution history. <u>See Phillips</u>, 415 F.3d at 1317. Although it may not be as authoritative as the specification, the prosecution history "can often inform the meaning of the claim language by demonstrating how the inventor understood the invention and whether the inventor limited the invention in the course of prosecution, making the claim scope narrower than it would otherwise be." <u>Id</u>. While the importance of intrinsic evidence has been emphasized, there are circumstances in which it is appropriate for a court to look to extrinsic evidence – such as dictionaries, treatises, and expert testimony – for guidance. <u>Id</u>. at 1317-1318. "The construction

that stays true to the claim language and most naturally aligns with the patent's description of the invention [in the specification] will be, in the end, the correct construction." <u>Id</u>. at 1316 (citation omitted).

Claim construction "ascribes claim terms the meaning they would be given by persons of ordinary skill in the relevant art at the time of the invention." SanDisk Corp. v. Memorex Prods., Inc., 415 F.3d 1278, 1283 (Fed. Cir. 2005). The court "indulge[s] a heavy presumption that claim terms carry their full ordinary and customary meaning unless the patentee unequivocally imparted a novel meaning to those terms or expressly relinquished claim scope during prosecution." Omega Eng'g, Inc. v. Raytek Corp., 334 F.3d 1314, 1323 (Fed. Cir. 2003) (internal citations omitted). "A claim construction that gives meaning to all the terms of the claim is preferred over one that does not do so." Merck & Co. v. Teva Pharms. USA, Inc., 395 F.3d 1364, 1372 (Fed. Cir. 2005).

The parties agree that one of ordinary skill in the art of the '846 Patent would have been a person with an undergraduate degree or the equivalent in the field of electrical engineering, physics, and/or optics, with at least some practical experience in optics.

1. "Non-transmissive, radiation reflecting optical structure"

This term is at the heart of the dispute. It is found in

⁷Defendants state that the term requiring construction is simply "non-transmissive" without the additional qualifying language supplied by Philips.

Claim 1, which recites

[a] record carrier containing information which is readable by a beam of radiation, said record carrier comprising a disc-shaped, radiation-transmitting substrate having a pair of planar surfaces on opposite sides thereof, a non-transmissive, radiation reflecting optical structure on one of said planar surfaces of said substrate

'846 Patent, Col. 5, 11. 61-66 (emphasis added). Defendants urge the court to read this term as meaning that the optical structure "does not transmit radiation such as light. For example, light can not be seen through the disc." Philips, on the other hand, contends that the term should not be construed to convey a property of the optical structure itself (its relative translucence). Rather, Philips argues that the term should be understood as characterizing the method by which the disc is read (in reflection mode as opposed to transmission mode). Philips proposes that the term be construed as "[a]n optical structure that reflects radiation for reading the information but does not also transmit radiation for reading the information."

The '846 Patent does not provide a definition of "non-transmissive." Therefore, the court will first look to the teachings of the specification and claim language. A stated object

⁸The term "non-transmissive" is also found in Claims 6 and 7.

Defendants' accused products allow varying degrees of light to pass through the optical structure. Therefore, they argue that their products fall outside the scope of the non-transmissive claim of the '846 Patent.

of the invention disclosed in the '846 Patent was to improve on the prior art by

provid[ing] a record carrier in which the optical structure is protected against dust particles and damage without the use of a protective layer which is required to satisfy stringent requirements. For this purpose the according invention carrier to the characterized in that the optical structure is a radiation-reflecting structure and the carrier substrate is radiation-transmitting, the surface of the carrier substrate more remote from the optical structure forming both the entrance face and the exit face for the read radiation. In this record carrier the carrier substrate itself ensures that dust particles are sufficiently spaced away from the optical structure.

'846 Patent, Col. 2, 11. 8-21 (emphasis added).

The specification describes prior art disclosed in the "Journal of the S.M.P.T.E." in November of 1979. This prior art used a protective layer on top of the optical structure that allowed the device to be read only in transmission mode. As the beam had to pass through the protective layer to reach the detector, the protective layer had to meet stringent quality standards. See id., Col. 2, 11. 6-7.10

Claim 1 specifies that the substrate under the optical structure is "radiation transmitting", <u>id</u>., Col. 5, 1. 63, and that the convergent beam of radiation used to read the disc enters the substrate and passes through it to a focused point on the optical

¹⁰In addition to meeting precise thickness requirements, the protective layer in the prior art was required to "intimately engage" the optical structure in order to prevent the occurrence of local air bubbles between the optical structure and the protective layer. '846 Patent, Col. 1, 11. 59-65.

"transmitting" in conjunction with the word "radiation" signifies that the substrate allows light to pass. From this, defendants argue, it follows that only a non-transmissive optical structure will do the opposite; that is, not allow light to pass through and reach the additional layer that covers the optical structure.

The specification further discloses that

[t]he faces of the optical structure have been made highly reflecting, for example in that after the structure has been pressed in the substrate a metal layer is deposited on it from vapour. The thickness of this metal layer is not of importance.

Id., Col. 3, 11. 29-34 (emphases added). 11 Of more than passing significance, this language discloses that the optical structure need only be "highly reflecting." It does not require that it be impervious to light. This interpretation finds support in the later statement that the thickness of the metal layer deposited by vaporization is of no critical significance. If, as defendants argue, the invention disclosed was concerned with prohibiting light from passing through the optical structure altogether, the thickness of the reflective layer on the optical structure would have been crucial to the task.

It is clear (and also undisputed) that the reduction, and preferably the elimination, of dust interference was a goal of the

¹¹This layer is referred to in Claim 1 as a "reflective layer extending over [the] intermediate areas and [the] depressions [in the optical structure]" '846 Patent, Col. 6, ll. 6-7.

'846 Patent.

By making the optical structure radiation-reflecting and the substrate radiation-transmitting, whilst the surface of the substrate more remote from the optical structure forms both the entrance face and the exit face for the read radiation, and by coating a surface of the optical structure more remote from the substrate with an additional layer, a simple record carrier is obtained which is well protected against dust particles and damage.

Id., Abstract. This in turn is supported by the language of Claim
1, which recites, in part,

the diameter of the beam is sufficiently larger than the diameter of said spot [on the optical structure] so that dust particles, scratches and the like on said other surface, do not interfere with the readout of information by the convergent beam focussed to said spot on said optical structure

Id., Col. 6, 11. 20-25.

Defendants point in particular to two statements in support of their contention that light does not pass through the optical structure. First, the specification discloses that

[t]he optical structure is read in reflection mode, which means that the read beam is modulated by reflection at the optical structure. The additional layer is not traversed by the read beam and is only required to protect the optical structure from damage. Hence this layer need not satisfy exacting requirements. It need not be radiation-transmissive and need not have a constant thickness throughout its surface. In addition, it need not accurately engage the optical structure.

Id., Col. 2, 11. 28-36 (emphasis added). Second, defendants make
note of the statement that

the record carrier may be read in a non-dustfree room, for example a living room, for dust particles deposited on the layer 10 have no effect, because the read beam

does not pass through this layer.

<u>Id</u>., Col. 4, ll. 21-24 (emphasis added). Because the specification and claim language provide no clear answer, the court will turn next to the prosecution history.

The '846 Patent issued after almost twenty years of continuation applications. Along the way, Philips was met with repeated rejections by the Examiner, and took appeals to both the Patent and Trademark Office Board of Appeals and Interferences (Board) and the Federal Circuit. See In re Kramer, 1991 WL 3392, at *1 (Fed. Cir. Jan. 17, 1991).

The original applied-for claim recited a disc-shaped record carrier with a "radiation-reflecting" optical structure. The Examiner rejected this claim over three patents issued to Feinleib: U.S. Patent Nos. 3,665,425 ('425 Patent); 3,696,344 ('344 Patent); and 3,696,386 ('386 Patent) (collectively, Feinleib). Unlike the invention in the '846 Patent, where information is permanently pressed into the disc and cannot be erased or rewritten, Feinleib's invention contained amorphous material that was recordable and rewritable, that is, actively recorded, erased, and rewritten by a light beam. The '386 Patent explains that the memory is read in

¹²In response to a question at his deposition about whether in 1971 and 1972 it was a matter of concern whether or not the read beam passed through the information layer (optical structure), Kramer responded, "I don't know. We couldn't care less. We couldn't care less. It's just that it should reflect enough that we have a good signal." Kramer Dep. at 120.

the transmission mode, where the light source and the detector are positioned on opposite sides of the disc and the detector reads the differences in the intensity of the light.¹³

In response to the rejection over Feinleib, Philips argued that "[a]pplicant's information structure is totally reflecting and therefore cannot pass light," contrasting the prior art by arguing that in Feinleib, the light "would tend to pass through the information structure." Pros. Hist. (PH) 0387 (emphasis added). Philips continued that

[a]pplicant achieves dust immunity of the information structure with respect to both the entering and exiting beam by selecting a totally reflecting information structure and a transparent substrate of sufficient thickness that a converging beam focussed as a cone of light on the information structure has a diameter at the entry surface of the substrate that is larger than the dust particles and a diameter at the information structure that is smaller than such dust particles. The exit cone of light thereby has the same diameter at the surface of the substrate.

Feinleib is totally unconcerned with dust immunity, since in all of the embodiments shown in the drawings Feinleib locates his transparent information structure near the upper surface of the record carrier, thereby bringing the dust accumulating on the upper surface close to the focus of the radiation beam used for reading. Furthermore, . . . the information structure of his non-preferred embodiment is alternately reflecting and transmitting radiation in accordance with the recorded information. Thus, in his reflecting embodiment, d[i]scussed but not shown in Feinleib, the light focussed on the portions of the information structure between reflecting areas would tend to pass through the information structure to the upper surface of the disc and would thereafter reflect

¹³The '425 Patent notes that the disc can also be read in the reflection mode.

off dust particles on the surface, thereafter propagating back through the information layer and disturbing the reading of the recorded information. Applicant's information surface, however, is totally reflecting and therefore cannot pass light to the nearby dust containing upper surface.

PH 0386-0387 (emphases added). According to Philips, dust immunity could only be achieved "by a proper combination of [1] substrate thickness, [2] reflectivity of the information layer, and [3] the convergence angle of the read beam." PH 0387.

The Examiner, however, maintained the rejection, responding that "as far as the [E]xaminer knows nothing is totally reflective." Philips subsequently replaced the words "totally reflecting" with the disputed term "non-transmissive," responding that

[o] bviously, the read beam does not pass through the layer 10 because it does not permeate the non-transmissive information layer 9. The non-transmissive character of the information layer prevents radiation from interacting with either dust or bubbles trapped between the protective layer 10 and the information layer 9 that would in the Feinleib apparatus scatter or reflect the light passing between reflective portions of Feinleib's reflecting and transmitting areas of his information structure.

It is only by the non-transmissive nature of the information structure in the embodiment of Fig. 2 that permits Applicant to avoid interference by dust particles and also permits Applicant to cover the reflective structure with a protective layer 10 to guard against scratching without the necessity for avoiding bubbles trapped between the information structure and the protective layer. Such bubbles would in all probability form light reflecting and scattering [sites] for scattering or reflecting light passing through the permeable areas of the reflective Feinleib information structure and passing back through that structure to

interfere with the reading of the information.

PH 0393. Philips further stated,

[t] he importance of the non-transmissive carrier of the information structure in applicant's disc is that after the beam passes through the substrate and is intercepted by the information structure it can not thereafter continue through the information structure to the backside of the record carrier where dust particles may also deposit.

PH 0492 (emphasis added).

Philips attempts to deflect these seemingly conclusive statements by putting the blame on its (prior) prosecuting attorney who, according to Philips, did not fully understand the technology. However, later in the prosecution, after the Examiner rejected the application yet again (on grounds of indefiniteness), Philips' new attorney argued that

[a]pplicant does not see how one can state more clearly that the "optical structure" does not transmit radiation incident on it than by saying that it is "nontransmissive" in the manner specified in the claims. Nor can applicant understand how it could be seriously contended that a man skilled in the art would not be able to determine the meaning of that expression.

PH 0621-0622. Philips defined the invention by explaining that

[t]he information (such as an audio or video signal) is contained in a plurality of depressions (a) spaced apart in the track direction by intermediate areas (b). A reflective layer (9) extends completely over the intermediate areas (b) and the depressions (a), rendering the entire optical structure reflective and non-transmissive to the incident radiation of the read beam.

PH 0744.

Philips attempted to differentiate its invention by

emphasizing that it read *only* in reflection mode, a matter that was given scant attention by Feinleib. 14

The second function performed by the substrate is to maintain dust particles, scratches and the like sufficiently far from the plane of the optical structure so that they do not interfere with the read-out of the information. This "dust immunity" results from the fact that in applicant's construction the optical structure is reflective and is disposed on the surface of the substrate which is remote from the source of the beam, so that the exterior surface (8) of the substrate defines both the entrance plane for the incident beam and the exit plane for the reflected modulated radiation.

PH 0745.

Perhaps the most telling statement by Philips was made in an attempt to directly distinguish its invention from Feinleib.

In essence, the only similarity between the memory unit [in Feinleib] and the record carrier defined in [applicant's disc] is that they are both optical storage media. There the similarity ends. In applicant's disc the optical structure is non-transmissive and reflective. Feinleib's entire memory unit is transmissive (he recovers the information by detecting intensity variations of the light after it has passed through the medium).

PH 0751 (emphases in original). Here, Philips used the word "transmissive" to describe the manner in which Feinleib's memory

¹⁴The Federal Circuit, in reviewing two decisions of the Board affirming the rejection of the application for obviousness, noted that although Feinleib separately suggested (1) a device that employs an optical structure comprised of depressions formed in a substrate, and (2) an optical structure that operates in the reflective mode, there was no "teaching which would lead one skilled in the art to use those alternatives together." <u>In re Kramer</u>, 1991 WL 3392, at *2. The Federal Circuit therefore concluded that it was error for the Examiner to reject the application as obvious over Feinleib. <u>Id</u>.

unit (information structure) functioned, that is, that it read the information in transmission mode.

As the intrinsic evidence does not provide a definitive answer to the dispute, the court will finally turn to the extrinsic evidence. The previously emphasized, "[i]n construing claims, the courts focus on what one of ordinary skill in the art at the time of the invention would have understood the term to mean." Mass. Inst. of Tech. v. Abacus Software, 462 F.3d 1344, 1353 (Fed. Cir. 2006) (citation omitted). Therefore, the court must determine what a person with an undergraduate degree (or the equivalent) in electrical engineering, physics, or optics would have understood the term "non-transmissive optical structure" to mean in 1972.

According to defendants' expert, Dr. Schlesinger, one of ordinary skill in the art in 1972 would have read the '846 Patent and the prosecution history to unequivocally state that the optical structure does not transmit light. Schlesinger Decl. ¶ 6. More specifically, Dr. Schlesinger testified that the hypothetical person skilled in the art in 1972 would have understood that the optical structure should be made "as non-transmissive as possible

¹⁵Courts are not prohibited from "examining extrinsic evidence, even when the patent document itself is clear. . . . Rather, [courts merely cannot] rely on extrinsic evidence in claim construction to contradict the meaning of the claims discernible from thoughtful examination of the claims, the written description, and the prosecution history - the intrinsic evidence." Pitney Bowes, Inc. v. Hewlett Packard Co., 182 F.3d 1298, 1308 (Fed. Cir. 1999) (emphasis in original).

and practical and that while theoretically and even actually some photons may pass this is irrelevant as they are not seen or detected on the other side of the structure." Id. ¶ 7.16 Dr. Schlesinger's testimony has particular force because he took care to contrast the technology available in 1972, before the CD was invented, to the present-day technology, which is at issue. With this in mind, Dr. Schlesinger noted that,

[b] ecause in 1972, each spot on an optical disk directly represented an increment of sound, as did each spot in the groove of a vinyl record, if the optical structure was transmissive then reflections from bubbles and dust over it would have been heard as crackles and pops as was the case for dust or scratches on the surface of a vinyl record. If the optical disk contained video information the result would have been "snow" or speckles on the screen as was the case with Laserdisc throughout the 1970s.

<u>Id</u>. ¶ 14.

According to Dr. Schlesinger, the problems associated with dust and bubbles were obviated in 1980 when Sony announced (and patented) an interleaving and error correcting technology that eliminated the misreading of adjacent spots on the disc that resulted from bubbles, dust, or scratches on the surface. The patent teaching the "Sony solution" was included as an essential licensed patent in the CD licenses granted by Philips. See id. ¶¶

¹⁶The court understands from Dr. Prucnal's testimony that a fundamental principle of optics states that "when light passes from one material to another, some of the light is reflected, some of the light is transmitted, and some of the light is absorbed." Prucnal Decl. ¶ 6. Therefore, it follows that nothing can be absolutely 100 percent non-transmissive.

17-22. According to Dr. Schlesinger, the Sony solution made it unnecessary after 1980 to incorporate in the CD-ROM an optical structure that did not transmit light. In post-1980 discs, the optical structure was able to "harmlessly transmit [a fraction of the beam] without the ill effects that were the concern of the '846 [P] atent back in 1972 and 1973." Id. ¶ 24.

CONCLUSION

Giving due consideration to the testimony of the witnesses (including Kramer), the court construes the term "non-transmissive" to mean "an optical structure that reduces the transmission of radiant light to the greatest degree practicable consistent with the intended purpose."

This, of course, does not end the matter, 17 and may indeed appear to avoid it. But it is important not to confuse the court's function under Markman with the role of the jury in deciding a claim of infringement. The court's obligation is to explain to the jury the meaning of difficult claim terms. Here, as is often the

¹⁷I am not referring to the parties' proposed constructions of the following additional terms: "optical structure"; "disc-shaped, radiation transmitting substrate"; "planar surfaces"; "beam of radiation"; "tracks"; "depressions"; "intermediate areas"; "radiation reflecting' optical structure"; "additional layer"; and "modulated radiation." A court is to confine itself to the construction of only those terms "that are in controversy, and only to the extent necessary to resolve the controversy." Vivid Techs., Inc. v. Am. Sci. & Eng'g, Inc., 200 F.3d 795, 803 (Fed. Cir. 1999). The court finds construction of these terms unnecessary as neither party has demonstrated that the '846 Patent does not adequately define or describe them.

practice in post-Markman patent litigation, the parties have invited the court to expand the scope of the construction to include not only the meaning of the disputed term, but also its significance to the operation of the invention's structure. As this determination necessarily involves an assessment of the credibility of the witnesses who testified (again including Kramer), the court must decline the invitation. Whether the intent of Philips in making a claim of "non-transmissiveness" was simply to enable a reading of the disc in reflection mode (as it contends), or to correct the reading interference issues eventually resolved by the "Sony solution" (as defendants maintain), is a matter for the jury, and not the court, to decide. 18, 19, 20

was a controversial one that divided the Federal Circuit in Markman. Although a unanimous Supreme Court considerably narrowed, if not eliminate altogether, the jury's role in determining how a claim should be defined, the Court left it to the jury to decide, as is the issue here, how that definition should be applied to a claim of infringement. See Allen Eng'g Corp. v. Bartell Indus., Inc., 299 F.3d 1336, 1344 (Fed. Cir. 2002) ("A determination of whether properly construed claims literally read on an accused product is a question of fact."). In the usual case, the Markman construction may well be determinative as the specification of the patent will explain the intent of the disputed term. That is not the case here where the clues are ambiguous and, as the parties have demonstrated, are susceptible to conflicting interpretations.

¹⁵The court acknowledges defendants' argument that if "non-transmissive" were construed to encompass a disc with a transmissive optical structure, the claims of the '846 Patent would be invalid for failure to meet the written description or enablement requirements of 35 U.S.C. § 112. The written description requirement of paragraph 1 of 35 U.S.C. § 112 requires that: "[t]he specification shall contain a written description of the invention." The Federal Circuit, in elaborating on the statute,

ORDER

The claim term at issue will be construed for the jury and for any other purpose in this litigation in a manner consistent with the above ruling of the court. The parties shall, within ten (10) days of the date of this Order, file a joint motion proposing any adjustments in the existing Scheduling Order necessitated by the court's unanticipated delay in issuing the decision.²¹ The parties might also suggest a possible time frame for the trial of the case

makes the point that,

[b] ecause claims delineate the patentee's right to exclude, the patent statute requires that the scope of the claims be sufficiently definite to inform the public of the bounds of the protected invention, i.e., what subject matter is covered by the exclusive rights of the patent. Otherwise, competitors cannot avoid infringement, defeating the public notice function of patent claims.

Halliburton Energy Servs., Inc. v. M-I LLC, 514 F.3d 1244, 1249 (Fed. Cir. 2008). Whether an applicant has complied with the written description requirement is a finding of fact. Regents of the Univ. of Cal. v. Eli Lilly & Co., 119 F.3d 1559, 1566 (Fed. Cir. 1997); In re Alton, 76 F.3d 1168, 1171-1172 (Fed. Cir. 1996). Accordingly, this issue will be left for later resolution.

²⁰The court notes the informative comments made in Greg J. Michelson, Note and Comment, <u>Did the Markman Court Ignore Fact, Substance</u>, and the Spirit of the Constitution in its Rush Toward <u>Uniformity?</u>, 30 Loy. L.A. L. Rev. 1749 (1997). While I do not agree with all of the author's conclusions, I found Mr. Michelson's Note helpful in shaping my own thinking on the proper division of labor between court and jury in matters of claim construction.

²¹I had originally contemplated issuing this decision shortly after the January 22 hearing, as I then indicated to the parties. The subsequent delay was not a result of inattention, but the consequence of sincere and prolonged wrestling with issues that proved more difficult than they had seemed at first glance.

to assist the court in adjusting any potentially conflicting commitments in the District of Massachusetts.

SO ORDERED.

Dated: May 4, 2010

Richard G. Stearns

United States District Judge